

**Responsiveness Summary
To Comments Made by the Environmental Protection Agency
For**

Proposed Air Quality Permit No. 1000604

**El Paso Natural Gas Company
Alamo Lake Compressor Station**

The following comments were made by the EPA, as received on December 9, 1997.

Comment 1: Attachment A. Section III.B.5. Permit Revision, Reopening, Revocation, and Reissuance, or Termination for Cause. Please correct this section as indicated in Comment #1 of the enclosed previous comment letter, dated November 14, 1997.

Response: To clarify that permit reopenings do not result in resetting the five-year term, except for permit reopenings to include new applicable requirements, Section III.B.5 has been revised as follows:

- (I) Section III.B.5 has been renamed as Section III.C
- (ii) The following sentence has been added to the language:

"Permit reopenings for reasons other than those stated in paragraph III.B.1 of this Attachment shall not result in a resetting of the five year permit term."

Comment 2: Attachment A. Section XIII. Reporting Requirements. Please correct this section as indicated in Comment #2 of the enclosed previous comment letter.

Response: To clarify the reporting requirements of the permit for the source, Section XIII has been rewritten to read as follows:

"Permittee shall comply with all of the reporting requirements of this permit. These include all of the following:

- (I) Compliance certifications pursuant to Attachment A, Section VII of this permit.
- (ii) Permit deviation reporting pursuant to Attachment A, Sections XI.A, XI.B, and XI.C of this permit.
- (iii) Reporting requirements listed in Attachment B, Section III of this permit."

Note: Making this modification results in Section III.B of Attachment "B" becoming redundant. Therefore, it was deleted.

Comment 3: Attachment A. Section XVI. Facility Change Without Permit Revision. Please correct this section as indicated in Comment #3 of the enclosed previous comment letter.

Response: ADEQ agrees with EPA on this comment. To clarify the meaning of Section XVI, the following two changes have been made:

- (i) The last sentence of Section XVI.C has been deleted
- (ii) Section XVI.C.1 has been deleted.

With these changes, the permit does not address facility changes which would not require notification to ADEQ. ADEQ is committed to working one-on-one with various industrial source groups to develop lists of such facility changes that would not require notification.

In addition to these changes, the review process revealed that the permit shield exemption for facility changes without revisions and minor revisions had been omitted from the permit. Consequently, Section X X of Attachment A of the permit now reads as follows:

"Compliance with the conditions of this permit shall be deemed compliance with the applicable requirements identified in Attachment "C" of this permit. The permit shield shall not apply to any changes made pursuant to Section XV.B of this Attachment and Section XVI of this Attachment."

Comment 4: Attachment A. Section XVII.B. Testing Requirements. Please correct this section as indicated in Comment #4 of the enclosed previous comment letter.

Response: To clarify the intent of the testing requirements, Section XVII has been modified to read as follows:

XVII TESTING REQUIREMENTS

[A.A.C.R18-2-312]

A. Operational Conditions During Testing

Tests shall be conducted during operation at the normal rated capacity of each unit, while operating at representative operational conditions unless other conditions are required by the applicable test method or in this permit. With prior written approval from the Director, testing may be performed at a lower rate. Operations during start-up, shutdown, and malfunction (as defined in A.A.C. R18-2-101) shall not constitute representative operational conditions unless otherwise specified in the applicable standard.

B. Test Plan.....

Comment 5: Attachment A. Section XX. Permit Shield. Please correct this section as indicated in Comment #5 of the enclosed previous comment letter.

Response: Permit shield language (Section XX, Attachment A) modified to read as:

“Compliance with the conditions of this permit shall be deemed compliance with the applicable requirements identified in Attachment "C" of this permit. The permit shield shall not apply to any changes made pursuant to Section XV.B of this Attachment and Section XVI of this Attachment”

Comment 6: Attachment B. Section I.A.3. Emission Limits/Standards. The requirement to combust only pipeline quality natural gas as the fuel fired in the GE regenerative gas turbine engine requires an additional citation. The current citation (A.A.C. R18-2-306.A.2) refers only to the general requirements for permit content in ADEQ’s Title V program. While it is appropriate to cite a general Title V program requirement, any conditions that are applicable because of previous permits, state rules, etc. should include an additional citation to the specific authority for the condition. Thus, Section I.A.3 requires an additional citation to the permit for significant revision (#1000296) issued by the ADEQ in January 1997. The EPA feels this will help clarify the origin of this condition for any future actions regarding the permit.

Response: ADEQ agrees with the EPA. A citation to permit condition IV (Fuel Restrictions) of Attachment B of the permit for significant revision #1000296 has been made in the permit.

Comment 7: Attachment B. Section I.B. Emission Limits/Standards. Two applicable requirements from the installation permit (#75013) issued by ADEQ in December 1993 for the Solar Taurus regenerative turbine engine have been excluded. First, the opacity limit in the installation permit states “... EPNG shall not cause to be discharged into the atmosphere from the Solar Taurus turbine any gases which exhibit greater than 20 percent opacity”. This requirement should be added with the appropriate citation.

Second, the NOx limit in the installation permit states “... EPNG shall not cause to be discharged into the atmosphere from the solar turbine stack, 0.019 percent by volume of NOx at 15 percent O2 and on a dry basis and at conditions specified in 40 CFR 60, Subpart GG...”. This requirement should be added with the appropriate citation. Alternatively, ADEQ may choose to streamline the NOx emission limit given in the installation permit with the NOx emission limit specified in the New Source Performance Standards (40 CFR 60, Subpart GG, 60.332.a.2) into one permit condition. All streamlining must be explained in the technical support document accompanying the permit, as explained in White Paper Number 2: “Note the use of this [streamlining] process in any required transmittal of a part 70

application, application summary, or revised application to EPA and include the streamlining demonstration and supporting documentation in the public record.”

Response: Prior to the implementation of the new air quality program which is based on the 1990 Clear Air Act Amendments, ADEQ issued permits based on their old program. These permits contained conditions beyond an applicable requirement. Often, permits issued were not based on any applicable rules or laws and were mostly arbitrary. Now that Arizona has been implementing the new program, which has more defined regulations and limitations that can be included in the permit, every effort has been made to carefully check those permit conditions which have no basis for inclusion in a permit.

Further, detailed conformity checks between the old program and the new program revealed no basis for the 20% opacity limit for natural gas turbines. Nor is the opacity required by the State Implementation Plan (SIP), or any state or federal requirements. The limit was not used to avoid triggering an applicable requirement, such as Prevention of Significant Deterioration (PSD). Nor was it based on any modeling results designated to protect the National Air Ambient Air Quality Standards in Section 110(a)(2)(C) of the Clean Air Act. New Source Performance Standards, 40 CFR 60, Subpart GG, under the purview of which the Solar Taurus falls, does not by itself have any opacity limit for affected facilities. Neither an examination of the technical support document for the installation permit nor a discussion with the permit engineer offered any explanation for the inclusion of the opacity limit in the permit. The Title V permitting process has afforded ADEQ the opportunity to correctly apply the applicable limitations to permits which were incorrectly applied in the past, for which this is an example. ADEQ therefore has not included the condition in the Title V permit.

The NO_x limit of 0.019 percent by volume in the installation permit was obtained by a direct substitution of the derated heat rate into the equation given in 60.332.a(2). With the information provided in the current application, ADEQ has calculated the NO_x limit to be 0.017 percent by volume. Since this limit was more stringent than that in the installation permit, ADEQ decided to retain the language of NSPS in the permit. There is no change in the permit term.

Comment 8: Attachment B. Section II.A. Monitoring and Recordkeeping Requirements. An applicable requirement from the installation permit (#75013) issued by ADEQ in December 1993 for the Solar Taurus regenerative turbine engine has been excluded: “Permittee shall measure the total amount of natural gas consumed and document daily fuel use”. Please add this condition with the appropriate citation. Also, Section II.A.1. should describe the sulfur fuel measuring technique, or cite the procedure from a regulation. Finally, the general citation to ADEQ’s Title V program (A.A.C. R18-2-306) for all of Section II fails to represent the specific authority for certain conditions in this Section, as described in Comment #7 above. The citation for Section II.A.1. should be A.A.C. R18-2-719.I.

Response: The requirement in Section II.A.1 provides a method for continuous monitoring for particulate, opacity, and sulfur dioxide emission standards (Sections I.A.1, I.A.2 and I.A.4 of Attachment B). It has been established -in the technical review document and through numerous past discussions with EPA staff- that natural gas combustion results in minimal emissions, and that the emissions standards are protected by an ample margin of safety. Imposing a rigorous monitoring and recordkeeping schedule would place unnecessary burden on the source. It was therefore decided to exclude the requirement to measure amount of natural gas consumed and record daily fuel use. Further, the Federal Energy Regulatory Commission's (FERC) Tariff agreement presented itself as a feasible alternative to the "daily" monitoring and recordkeeping requirements of AAC R18-2-719.J. As stated in the technical review document, the Tariff agreement limits the sulfur content of the natural gas to 0.017 percent by weight of sulfur (an order of magnitude lesser than the standard). The Permittee cannot utilize natural gas that has a sulfur content greater than the aforementioned limit without violating the Tariff agreement. Specifying the monitoring requirement in this manner streamlines the permit conditions. There is no change in the permit condition.

The specific citation (A.A.C. R18-2-719.I) for Section II.A.1 has been included in the permit.

Comment 9: Attachment B. Section II.B.1. and 2. Monitoring and Recordkeeping Requirements. The citation for both of these sections should be (40 CFR 60.334). Also, the EPA agrees that the requirement to monitor fuel nitrogen content is waived, and we offer the following suggestion for clarity. The monitoring and recordkeeping section should only list the actual requirements with which a source must comply, and thus should not include the fuel nitrogen monitoring requirement. Instead, the requirement and explanation of waiver should be given in the technical support document. We would like to point out that our suggestion to remove this condition from the permit in no way jeopardizes the source's shield from this requirement. The source is still shielded because the Attachment "C" states "Compliance with the terms contained in this permit shall be deemed compliance with...Standards of Performance for New Stationary Sources 40 CFR 60, Subpart GG". Therefore, as long as the source complies with the terms in the permit, they are deemed in compliance with all of NSPS, Subpart GG, including the requirement to monitor fuel nitrogen content. Please see Comment #14 below for additional corrections needed to properly obtain a permit shield.

Response: ADEQ agrees with the EPA. The monitoring and recordkeeping requirement of II.B.2 has been deleted. The specific citation (60 CFR 60.334) for Sections II.B.1 has been included the permit.

Comment 10: Attachment B. Section III. Reporting Requirements. The citation is missing from this section. It should be (A.A.C. R18-2-306.A.5.a).

Response: The missing citation has been added to the permit condition.

Comment 11: Attachment B. Section IV.A. Testing Requirements. This condition incorrectly omits an applicable requirement. As stated in the permit for significant revision (#1000296) issued by ADEQ in January 1997, "...performance test shall be conducted at least on a triennial basis." This should be added, along with a citation to the permit.

Response: The requirement in the installation permit to conduct perform test at least triennially follows from a mass emission testing policy for gas turbines and internal combustion engines used for natural gas transmission for emission inventory purposes. At the time this policy was developed, DEQ was issuing permits valid for a period of three years. Hence a policy was developed to test once during the term of the permit. Anticipating the issuance of the Title V permits, ADEQ had updated the permit term and the testing policy to mandate testing once during the life time of the permit. There is no change in the testing frequency.

Comment 12: Attachment B. Section IV.B. Testing Requirements. The citation is missing from this section. It should be (A.A.C. R18-2-306.A.3). Note that previous ADEQ draft natural gas compressor station permits included a citation in the Testing Requirements section to A.A.C. R18-2-311 and 312. Because these rules were not approved into ADEQ's Title V program, the EPA suggests these sections not be cited in ADEQ Title V permits to avoid possible problems in the future.

Response: The missing citation (A.A.C. R18-2-306.A.3) has been added to the permit.

Comment 13: Attachment B. Section IV.C. Testing Requirements. As explained in Comment #9 of the enclosed previous comment letter, "alternate and equivalent test methods" must be clearly defined in the permit. This applies for all required testing, regardless of where the testing requirement is given. Because the EPA does not have a copy of the current state rules, it is unclear what is contained in Articles 9 and 11, and why an exception was made for these sections.

Response: The Permittee has requested that they be provided the flexibility to employ other effective testing methods that meet the requirements of AAC R18-2-311(D). AAC R18-2-311(D) states that except for emissions testing required under Articles 9 and 11 of AAC Chapter 18, alternative and equivalent test methods as specified in Appendix A of 40 CFR 60 may be submitted and approved by the Director under certain circumstances (AAC R18-2-311(D.1,D.2,D.3)). The following language has been added to the permit:

"The Permittee may submit an alternate and equivalent test method(s) that is listed in 40 CFR Subpart 60, Appendix A to the Director in any test plan for approval by the Director."

Comment 14: Attachment C. Please make the changes described above in Comment #9. Also,

please correct this section as indicated in Comment #10 of the enclosed previous comment letter.

Response: Please see Response to Comment 5. Attachment C now states : "Compliance with the terms contained in this permit shall be deemed compliance with the following federally applicable requirements **in effect on the date of permit issuance:.....**".

Comment 15: Attachment E. Insignificant Activities. Please correct this section as indicated in Comment #11 of the enclosed previous comment letter.

Response: AAC R18-2-101.54 defines an "insignificant activity" as follows:

"Insignificant activity" means an activity in an emissions unit that is not otherwise subject to any applicable requirement and which belongs to one of the following categories:

- a. Landscaping.....etc.
- b. Gasoline storage tanks.....etc.
- c. Diesel and.....etc.
- d. Batch mixers.....etc.
- e. Wet sand.....etc.
- f. Hand-held or manually operated equipment.....etc.
- g. Powder....etc.
- h. Internal...etc.
- I. Lab equipment....etc.
- j. Any other activity which the Director determines is not necessary, because of it's emissions due to size or production rate, to be included in an application in order to determine all applicable requirements and to calculate any fee under this Chapter.

From this definition, it can be seen that under Arizona rules for a unit to qualify as an insignificant activity, there should be no generally applicable requirements that the source may be subject to. This definition is different from the definition of insignificant activities under Part 70. All the activities listed under Attachment "D" of the permit have been determined not to have any applicable requirements.

Comment 16: Technical Support Document. The technical support document should provide a clear and concise explanation of all requirements in the permit. We found most of this document to be clear and concise, but are concerned by the justification given for excluding PM and opacity monitoring requirements on the turbines engines. Instead of giving data to defend ADEQ's decision, the technical support document refers the reader to a "preceding discussion". While today it is relatively simple to find the "preceding discussion" in earlier technical support documents, through the

years (as facilities shut down, etc.) these documents may become much less accessible. Given the small amount of data involved for justification, EPA suggests that ADEQ include the data in each permit's technical support document. Alternatively, ADEQ can make a more specific reference to the exact permit that contains the "preceding discussion". If this option is chosen, ADEQ must ensure that any referenced material is readily available.

Response: ADEQ understands EPA's concern and will make all efforts to ensure that any referenced material is readily available. However, "preceding discussion" as stated in the technical support document was meant to refer the reader back to Section II.B of the technical support document where the justification in terms of numeric data is given and not refer to any outside material as was interpreted by the EPA. A clarification has been made to specify the reference.

The following comment was made by EPNG during the Public Comment period. The following response was made by ADEQ after its discussions with the EPA during the Teleconference on December 16, 1997.

Comment: *II. Compliance with permit conditions:*

A. The first sentence of this provision should be reworded to conform to the permit shield provisions of R18-2-325:

The Permittee shall comply with all conditions of this permit, which sets forth all applicable requirements of Arizona's air quality statutes and the air quality rules.

The existing language could be read as requiring the Permittee to comply with "all applicable requirements" which contradicts the purpose of a Class I permit.

Response: ADEQ had initially agreed with EPNG on this issue. However, EPA as a part of their comments had concerns regarding the addition of this phrase. According to the EPA, the condition could be incorrectly interpreted to provide permit shield for all those requirements which have not been identified in the permit. Upon a review of our regulations, it was decided to use the language as quoted in A.A.C. R18-2-306.A.8. Therefore, there will be no change in the permit condition.

RESPONSIVENESS SUMMARY

To EPA Comments on Proposed Title V Permit
During Official 45-Day EPA Review Period for

El Paso Natural Gas Company

Alamo Lake Compressor Station (Permit No. 1000164)
Seligman Compressor Station (Permit No. 1000158)

The following comments were made on April 23, 1998 during the official 45-day EPA Review period which ends on May 3, 1998:

ALAMO LAKE COMPRESSOR STATION

Comment 1: Attachment B.I.A.2. Natural gas fired GE Turbine Engines. This permit condition limits the GE turbine engine to "40 percent opacity measured in accordance with the Arizona Testing Manual, Reference Method 9". As written, this condition could be read to imply an exclusive link between the emission limit and the method of determining compliance. Conditions in a title V permit cannot limit the types of data or information that may be used to prove a violation of any applicable requirement, i.e., restrict the use of any credible evidence. To correct this credible evidence problem, emission limits should be separated from the required method of monitoring by placing each in its respective section of the permit. Because no Method 9 tests will be required for this facility, simply removing the language referring to Reference Method 9 from the Emission Limits/Standards section will correct this problem.

Response: ADEQ agrees with the EPA on this comment. Condition I.A.2 of Attachment has been revised to read as follows:

"Permittee shall not cause, allow or permit to be emitted into the atmosphere from the GE regenerative gas turbine engine, smoke for any period of time greater than ten consecutive seconds which exceeds 40 percent opacity. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes."

Comment 2: Attachment B.I.A.4. Natural gas-fired Solar Taurus Turbine Engine. According to the technical support document, the previous permit for this facility (#75013) limited its emissions to 20% opacity. All conditions in installation permits and conditions in operating permits deriving from installation permits are applicable requirements and should be included in the title V permit. Even if there is no clear regulatory requirement for the inclusion of these limits in the underlying permit, they may have been included to keep a source out of certain requirements (NSR, NSPS, etc).

However, it may be possible to amend the underlying permit to remove certain obsolete, extraneous or environmentally insignificant conditions. Please see EPA's attached comment on removing applicable conditions from title V by amending the underlying permit. The fuel amount limits need to be included, unless ADEQ can and does modify the underlying permit in accordance with our guidance. Note that if the opacity limit is included, the previous permit should be cited.

Response: In a teleconference call with Erica Ruhl and Ginger Vagenas of the EPA on April 23, 1998, it was discussed that to remove requirements from previous installation permits, the old permit must be amended concurrently with the Title V permit. In addition, limitations that are being removed from previous permits should be disclosed in the public notice document.

EPA agreed during the teleconference call on April 23, 1998 that because the units burn natural gas, it would be acceptable to remove the opacity limitation. As discussed in the technical support document, we are hereby revising the installation permit through this Part 70 renewal process.

Comment 3: *Attachment B.I.C.1.a. Open areas, Roadways, Streets, Storage Piles or Material Handling. As written, this condition could be read to imply an exclusive link between the emission limit and the method of determining compliance. However, in this case the language linking the emission limit and the test method ("40% opacity measured by EPA Reference Method 9") is a direct quote from the SIP rule. In the context of credible evidence, language in the SIP overrides any permit language, so EPA cannot require a separation of the emission limit and test method. However, the language in the permit should be revised to match the language in the SIP rule exactly. ("40% opacity measured in accordance with the Arizona Testing Manual, Reference Method 9"). We recognize this seems like a minor change, but the language "measured in accordance with" matches the language in the NSPS 40 CFR 60.8 and will improve the enforceability of the permit.*

Response: ADEQ agrees with the EPA on this comment. Condition I.C.1.a of Attachment B has been revised to read as follows:

"Permittee shall not cause, allow or permit visible emissions from open areas, roadways and streets, storage piles or material handling in excess of 40 % opacity, measured in accordance with the Arizona Testing Manual, Reference Method 9."

Comment 4: *Attachment B.II.B. Natural Gas-fired Solar Taurus Turbine Engine. According to the technical support document, the installation permit for this turbine (#75013) required the permittee to measure the total amount of natural gas consumed and document daily fuel use. This requirement should be included, unless ADEQ amends the underlying permit according to the attached guidance.*

Response: In a teleconference call with Erica Ruhl and Ginger Vagenas of the EPA on April 23, 1998, it was discussed that to remove requirements from previous installation permits, the old permit must be amended concurrently with the Title V permit. In addition, limitations that are being removed from previous permits should be disclosed in the public notice document.

The technical support document has been revised to include a discussion pertaining to the removal of the fuel limitation requirement. As mentioned in the technical support document, we are hereby revising the installation permit through this Part 70 renewal process.

Comment 5: *Attachment B.III. Reporting Requirements. Reports of required monitoring must be submitted every 6 months, pursuant to A.A.C. R18-2-306.A.5.a. As described in the preamble to 40 CFR Part 70, these reports must include all recordkeeping performed in place of monitoring, i.e., (for this permit) records of dust control measures required by Section II.F.1. Please add a new provision (III.B.3) requiring the Permittee to submit a report, at least every 6 months, of all records required under Section II.B. This citation for the new condition should be A.A.C. R18-2-306.A.5.a. For convenience, this requirement may be timed to coincide with the compliance certifications required by Section VII of Attachment A.*

Response: ADEQ agrees with the EPA on this comment. A new condition III.C has been added to the permit. Section III.C reads as follows:

“At the time the compliance certifications required by Section VII of Attachment “A” are submitted, the Permittee shall submit reports of all monitoring activities required by Section II of this Attachment performed in the six months prior to the date of the report.”

SELIGMAN COMPRESSOR STATION

Comment 6: *Attachment B. The numbering convention used in Attachment B starts out with XXI, XXII, and XXIII, but is followed by IV. Please correct this to avoid confusion. Also, note that if the "XX..." numbering system is used, several sections of the permit need to be changed to reflect the new numbering.*

Response: ADEQ has corrected the typographical errors. The numbering system in Attachment B should read as I, II, III, and IV.

Comment 7: *Attachment B. XXI.A.2. Although the NSPS Subpart GG requirements were included in a previous permit by error, they are applicable requirements and must be removed from the underlying permit in accordance with our attached guidance if they are to be excluded from the Title V permit. Such an amendment to the underlying permit should be clearly documented in the technical support document*

of this permit. Also, please correct Section XXI.A.2 as described in comment #1.

Response: In a teleconference call with Erica Ruhl and Ginger Vagenas of the EPA on April 23, 1998, it was discussed that to remove requirements from previous installation permits, the old permit must be amended concurrently with the Title V permit. In addition, limitations that are being removed from previous permits should be disclosed in the public notice document.

The technical support document has been revised to include a discussion pertaining to the removal of the NSPS Subpart GG requirements. As mentioned in the technical support document, we are hereby revising the installation permit through this Part 70 renewal process.

The typographical error has been corrected as stated in the response to comment #7. Condition I.A.2 of Attachment has been revised to read as follows:

"Permittee shall not cause, allow or permit to be emitted into the atmosphere from the stationary gas turbine engine, smoke for any period of time greater than ten consecutive seconds which exceeds 40 percent opacity. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes. "

Comment 8: Attachment B.XXI.B.1.a. Please make the correction described in the comment #3 above.

The typographical error has been corrected as stated in Comment 7. ADEQ agrees with the EPA on this comment. Condition I.B.1.a of Attachment B has been revised to read as follows:

"Permittee shall not cause, allow or permit visible emissions from open areas, roadways and streets, storage piles, and material handling in excess of 40% opacity, measured in accordance with the Arizona Testing Manual, Reference Method 9."

Comment 9: Attachment B.XXIII. Please make the correction described in the comment #5 above.

The typographical error has been corrected as stated in Comment 7. ADEQ agrees with the EPA on this comment. A new condition III.C has been added to the permit. Section III.C reads as follows:

"At the time the compliance certifications required by Section VII of Attachment "A" are submitted, the Permittee shall submit reports of all monitoring activities required by Section II of this Attachment performed in the six months prior to the date of the report."